

Work Order ID 159236

Wednesday, April 05, 2017 4:32:58 PM

159236

Page 1

Item ID: 646.4001 **Accept** ***N900040100*** **Setup Start** ***NS1***
Revision ID: **Stop** ***NS2***
Item Name: AS350 Cable Cutter System
Start Date: 4/10/2017 **Start Qty:** 1.00 ***1*** **Cust Item ID:**
Required Date: 4/18/2017 **Req'd Qty:** 1.00 ***1*** **Customer:**
Reference: SCHEDULED/S

Approvals: **Process Plan:** DAS 21 **Date:** APR 06 2017 **Tooling:** **Date:** **Run Start** ***NR1***
QC: 9-89 **Date:** **SPC (Y/N):** **Date:** **Stop** ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.4000	C1								
100	Document Control								
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 646.4001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.03							
Quality Control									

APR 10 2017 DAS 6

① 17.05.03 DAS 9 9-89

APR 17 2017 DAS 6 9-89 DAS 27 9-89

① 17.05.03 DAS 9 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
2AC 8 1000				2AC 8 1000				Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

Work Order ID 159236

Wednesday, April 05, 2017 4:32:58 PM

159236

Page 2

Item ID: 646.4001 **Accept** ***N900040100*** **Setup Start** ***NS1***
Revision ID: **Stop** ***NS2***
Item Name: AS350 Cable Cutter System
Start Date: 4/10/2017 **Start Qty:** 1.00 ***1*** **Cust Item ID:**
Required Date: 4/18/2017 **Req'd Qty:** 1.00 ***1*** **Customer:**
Reference: SCHEDULED/S

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start** ***NR1***
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 646.4001								
Packaging	Location: _____								
	sold								
140	QC21- Final Inspection - Work Order Release	0.00							
140	Memo	0.10							
QC									
Quality Control									

SMB
17/5/13

17/5/3

MAY 03 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

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159236

646 4001

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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12

DAS
6
9-80

APR 12 2017

**DAS
27
9-89**

DAS
27
3-89

DAS
27
9-89

MAR 03 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐						OTHER : _____	

Picklist Print

Wednesday, April 05, 2017 4:32:55 PM

Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

600.1012 Purchased No

100 Each

15.0000

1 1

600 1012

Sealant PR1425B2 (#654 sem)

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck017

15

m136838

8

m1370073

7

600.1013 Purchased No

100 Each

60.0000

5 5

600 1013

021200-3M TAPE PRIMER 94 PRIMER 24216

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK096

60

m136345

35

m137150

25

646.2910 Manufactured No

100 Each

14.0000

1 1

646 2910

Deflector

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

CCK050

14

155356

14

646.3001 Manufactured No

100 Each

6.0000

1 1

646 3001

Lower Cable Cutter Assembly

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

cck018

6

156876

4

156316

2

10/7/2018

10/8/2018

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Wednesday, April 05, 2017 4:32:56 PM

Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3511 Manufactured No

100 Each 7.0000 1 1

646.3511

Strut

DAS
9
9-89

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location Loc Qty Loc Code

cck104 1

155269 1

CCK108A 6

156231 6

646.3610 Manufactured No

100 Each 19.0000 1 1

646.3610

Filler

DAS
9
9-89

**

DAS
6
9-89

DAS
27
9-89

Location Loc Qty Loc Code

cck104 19

151687 1

156880 18

646.3710 Manufactured No

100 Each 23.0000 1 1

646.3710

Doubler

DAS
9
9-89

**

DAS
6
9-89

DAS
27
9-89

Location Loc Qty Loc Code

CCK006 23

152594 23

646.3711 Manufactured No

100 Each 12.0000 1 1

646.3711

Clip

DAS
9
9-89

**

DAS
6
9-89

DAS
27
9-89

Location Loc Qty Loc Code

cck104 12

151670 2

156840 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabelled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Date : _____		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

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Required Qty: 1.00

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

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Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.3910 Manufactured No

100 Each 29.0000 4 4

646.3910

Shim

DAS
9
9-89

**

APR 11 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
CCK106	17	
151458	1	
155260	4	
156217	12	
CCK108A	12	
156793	12	

4

646.3911 Manufactured No

100 Each 13.0000 1 1

646.3911

Shim

DAS
9
9-89

**

APR 11 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
CCK106	13	
126229	13	

646.3912 Manufactured No

100 Each 27.0000 4 4

646.3912

Shim

DAS
9
9-89

**

APR 11 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
CCK108A	27	
155639	12	
156874	15	

646.3913 Manufactured No

100 Each 52.0000 1 1

646.3913

Shim

DAS
9
9-89

**

APR 11 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
CCK106	52	
126060	52	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

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Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

646.9410 Manufactured No

100 Each 61.0000 1 1

646 9410

Shim

DAS
9
9-89

**

Location

Loc Qty

Loc Code

cck011

61

140671

61

100 Each 49.0000 2 2

647.0112

Manufactured No

647 0112

Strut Bracket

DAS
9
9-89

**

Location

Loc Qty

Loc Code

CCK106

17

156756

17

CCK106

32

155480

32

100 Each 8.0000 2 2

647.7703

Manufactured No

647 7703

Strut Assembly

DAS
9
9-89

**

Location

Loc Qty

Loc Code

CCK114

8

157782

8

100 Each 30.0000 2 2

650.9201

Manufactured No

650 9201

Eyelet Bracket Assembly

DAS
9
9-89

**

Location

Loc Qty

Loc Code

cck127

30

155578

10

156828

20

100 Each 30.0000 2 2

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

Picklist Print

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Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-11A Purchased No

100 Each

398.0000

~~10~~

10

AN3-11A

Bolt

DAS
9
9-89

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

Location

Loc Qty

Loc Code

over003

250

153855

150

m136192

100

ST349

148

153855

148

AN3-12A Purchased No

100 Each

269.0000

~~2~~

2

AN3-12A

Bolt

DAS
9
9-89

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

Location

Loc Qty

Loc Code

over003

206

153854

206

ST349

63

m135603

63

AN3-13A Purchased No

100 Each

47.0000

~~1~~

1

AN3-13A

Bolt

DAS
9
9-89

**

DAS
6
9-89

DAS
27
9-89

APR 11 2017

Location

Loc Qty

Loc Code

GA

16

m127070

16

ST349

31

153845

30

m136406

1

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

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Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN316C4R Purchased No

100 Each 35.0000 2 2

AN316C4R

Nut, Jam

DAS
9
9-89

**

Location

Loc Qty

Loc Code

ST331

35

153850

35

APR 11 2017

DAS
6
9-89

DAS
27
9-89

AN3-3A Purchased No

100 Each 55.0000 4 4

AN3-3A

Bolt

DAS
9
9-89

**

Location

Loc Qty

Loc Code

ST350

55

m136741

6

m136975

5

m137061

44

APR 11 2017

DAS
6
9-89

DAS
27
9-89

AN3-4A Purchased No

100 Each 222.0000 10 10

AN3-4A

Bolt

DAS
9
9-89

**

Location

Loc Qty

Loc Code

ST350

222

m136579

222

APR 11 2017

DAS
6
9-89

DAS
27
9-89

AN3-5A Purchased No

100 Each 355.0000 2 2

AN3-5A

Bolt

DAS
9
9-89

**

Location

Loc Qty

Loc Code

FP001

18

m136182

18

GA

252

m136986

252

ST350

85

m136182

85

APR 11 2017

DAS
6
9-89

DAS
27
9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	Past Due ☐							

Picklist Print

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Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

AN3-6A Purchased No

100 Each 73.0000 2 2

AN3-6A

Bolt

DAS
9
9-89

**

APR 11 2017

Location

Loc Qty

Loc Code

ST350

73

153844

73

29.0000

2

2

AN44-5A

Purchased

No

100 Each

AN44-5A

Eyebolt

DAS
9
9-89

**

APR 11 2017

Location

Loc Qty

Loc Code

ST339

29

m136047

5

m136866

12

m137075

12

66.0000

2

2

AN4C7A

Purchased

No

AN4C7A

BOLT

DAS
9
9-89

**

APR 11 2017

Location

Loc Qty

Loc Code

OVER002

54

m136295

54

ST345

12

123900

4

m135864

8

20.0000

2

2

AN665-34R

Purchased

No

AN665-34R

Clevis

DAS
9
9-89

**

APR 11 2017

Location

Loc Qty

Loc Code

ST330

20

153852

20

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

Picklist Print

Wednesday, April 05, 2017 4:32:57 PM

Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

CCR264SS3-02 Purchased No 100 Each 293.0000

CCR264SS3-02

Cherry Rivet

DAS
9
9-89

**

36
DAS
6
9-89

APR 11 2017

DAS
27
9-89

Location	Loc Qty	Loc Code
CCK003	225	
M136986	225	
ST321	68	
M136648	68	

36

CR3213-5-3 Purchased No 100 Each 102.0000

CR3213-5-3

Cherry Rivet

DAS
9
9-89

**

14
DAS
6
9-89

APR 11 2017

Location	Loc Qty	Loc Code
ST319	102	
m136537	2	
m136851	100	

12

DAS
27
9-89

MS20426AD5-7 Purchased No 100 Each 1,422.000

MS20426AD5-7

RIVET

DAS
9
9-89

**

2
DAS
6
9-89

APR 11 2017

Location	Loc Qty	Loc Code
CCK004	703	
153848	703	
ST311	719	
M133922	719	

2
DAS
6
9-89

DAS
27
9-89

MS20470AD5-5.5 Purchased No 100 Each 702.0000

MS20470AD5-5.5

Rivet

DAS
9
9-89

**

8
DAS
6
9-89

APR 11 2017

Location	Loc Qty	Loc Code
ST309	702	
m134063	702	

8

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS20470AD5-6 Purchased No

100 Each

592.0000

8 8

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

MS20470AD5-6
RIVET

DAS
9
9-89

Location

Loc Qty

Loc Code

ST309

592

124089

592

MS20470AD5-7 Purchased No

100 Each

368.0000

3 3

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

MS20470AD5-7
Rivet

DAS
9
9-89

Location

Loc Qty

Loc Code

ST309

368

123425

368

MS21042-08 MS21042L08 Purchased No

100 Each

0.0000

2 2

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

MS21042-08
USE MS21042L08

DAS
9
9-89

MS21042-3 MS21042L3 Purchased No

100 Each

0.0000

2 2

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

MS21042-3
Nut

DAS
9
9-89



Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date : _____		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due	OTHER :							

Picklist Print

Wednesday, April 05, 2017 4:32:57 PM

Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L3 Purchased

No

100

Each

1,921.000

61

61

MS21042L3

DAS
9
9-89

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Nut

Location

Loc Qty

Loc Code

FP001

100

m135945

100

GA

208

m134360

102

M136665

106

OVER007

800

m134360

0

M136665

300

m137166

500

ST303

813

m137073

813

MS21042L4 Purchased

No

100

Each

1,365.000

2

2

MS21042L4

DAS
9
9-89

**

DAS
6
9-89

APR 11 2017

DAS
27
9-89

Nut

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

154

m135058

154

OVER007

500

m137166

500

ST303

701

m136450

199

m136838

2

m136986

500

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Wednesday, April 05, 2017 4:32:57 PM

Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS21047-3 Purchased No 100 Each 216.0000 18 18

MS21047-3

Nut Plate

DAS
9
9-89

**

APR 11 2017
DAS 6 9-89
DAS 27 9-89

Location	Loc Qty	Loc Code
ST301	216	
m136442	3	
m136781	13	
m136986	100	
m137075	100	

MS24693-C278 Purchased No 100 Each 60.0000 5 5

MS24693-C278

Screw

DAS
9
9-89

**

APR 11 2017
DAS 6 9-89
DAS 27 9-89

Location	Loc Qty	Loc Code
ST287	60	
m136554	60	

MS24694-S51 Purchased No 100 Each 322.0000 5 5

MS24694-S51

Screw

DAS
9
9-89

**

APR 11 2017
DAS 6 9-89
DAS 27 9-89

Location	Loc Qty	Loc Code
ST284	322	
m135442	72	
m136866	250	

MS24694-S54 Purchased No 100 Each 192.0000 2 2

MS24694-S54

SCREW

DAS
9
9-89

**

APR 11 2017
DAS 6 9-89
DAS 27 9-89

Location	Loc Qty	Loc Code
ST284	192	
153846	157	
m135948	35	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date : _____		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	
				☐ OTHER : _____							

Picklist Print

Wednesday, April 05, 2017 4:32:57 PM

Page 17

Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS24694-S55

Purchased

No

100

Each

314.0000

3

3

MS24694-S55

Screw

DAS
9
9-89

Location

Loc Qty

Loc Code

over006

247

153847

247

ST283

67

m136042

67

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-08-13

Purchased

No

100

Each

348.0000

2

2

MS27039-08-13

Screw

DAS
9
9-89

Location

Loc Qty

Loc Code

over006

325

153849

325

ST278

23

m136199

23

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-10

Purchased

No

100

Each

309.0000

2

2

MS27039-1-10

SCREW

DAS
9
9-89

Location

Loc Qty

Loc Code

GA

15

m129541

15

ST280

294

m137164

294

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

MS27039-1-12

Purchased

No

100

Each

64.0000

6

6

MS27039-1-12

Screw

DAS
9
9-89

Location

Loc Qty

Loc Code

ST280

64

m136537

64

**

APR 11 2017

DAS
6
9-89

DAS
27
9-89

Wednesday, April 05, 2017 4:32:57 PM

Shop Packet Print

Page 17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

Page 18

Wednesday, April 05, 2017 4:32:57 PM

Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-16

Purchased

No

100

Each

171.0000

24

24

MS27039-1-16

Screw

DAS
9
9-89

**

DAS
6
9-89

ADD 1 1 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

over006

50

m137061

50

ST280

121

m136851

100

m136975

21

27

MS27039-1-19

Purchased

No

100

Each

281.0000

22

22

MS27039-1-19

Screw

DAS
9
9-89

**

DAS
6
9-89

APR 1 1 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

80

m134134

80

ST280

201

m136648

1

m137075

200

22

MS27039-1-20

Purchased

No

100

Each

89.0000

2

2

MS27039-1-20

Screw

DAS
9
9-89

**

DAS
6
9-89

APR 1 1 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

89

m136554

89

2

MS27039-1-21

Purchased

No

100

Each

167.0000

4

4

MS27039-1-21

Screw

DAS
9
9-89

**

DAS
6
9-89

APR 1 1 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST280

167

m127904

167

4

Wednesday, April 05, 2017 4:32:57 PM

Shop Packet Print

Page 18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
☐ Environment	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
☐ Design	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
☐ Doc/Data	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
☐ Equip/Tooling	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
☐ Handling/Pre	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
☐ Material	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
☐ Internal Transport	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
☐ Tribal Knowledge	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
☐ LOA	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
☐ Substation	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
☐ Past Expiry Date	☐ Manufacturing Process	☐ OTHER : _____					
☐ Misidentified	☐ Past Due						

Picklist Print

Wednesday, April 05, 2017 4:32:57 PM

Work Order ID: 159236

159236

Parent Item: 646.4001

646 4001

Parent Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017

Required Date: 4/18/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

100

Each

2,528.000

144

144

NAS1149F0332P

Washer

DAS
9
9-89

**

DAS
6
9-89
DAS
27
9-89

APR 11 2017

Location

Loc Qty

Loc Code

GA

335

m133709

335

ST262

2193

m136835

393

m137075

1800

144

NAS1149F0363P

Purchased

No

100

Each

82.0000

2

2

NAS1149F0363P

WASHER

DAS
9
9-89

**

APR 11 2017

DAS
6
9-89
DAS
27
9-89

Location

Loc Qty

Loc Code

ST262

82

124555

82

2

NAS1149F0432P

Purchased

No

100

Each

601.0000

4

4

NAS1149F0432P

WASHER

DAS
9
9-89

**

APR 11 2017

DAS
6
9-89
DAS
27
9-89

Location

Loc Qty

Loc Code

ST262

601

M136442

601

4

NAS1149FN832P

Purchased

No

100

Each

1,526.000

4

4

NAS1149FN832P

Washer

DAS
9
9-89

**

APR 11 2017

DAS
27
9-89
DAS
6
9-89

Location

Loc Qty

Loc Code

GA

323

M135058

232

M136182

91

ST263

1203

M136866

1203

4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : _____							



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05304

SHEET 1 OF 1

DWG NO. 646.4000

REV: C

PREPARED BY J. BECKER

DATE: 02/04/16

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: AS350 CABLE CUTTERS KIT

APPROVED BY:

ENGR.

MFG

QC

EFF. NEXT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED F/N 12.

ECR:
N/A

ACTION ITEM:
1. N/A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 159236 MWS
170406

SHEET 1, BOM IS:

12	R	601.1624	8	16	LOCKNUT	MS21042L3	
F/N	TC	PART NUMBER	4006	4005	DESCRIPTION	MATERIAL	SPECIFICATION
			QTY				
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED	
☐ PATTERN ☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☒ BOM					☐ MAJOR ☒ MINOR	☐ YES ☒ NO	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE EXPLICIT WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

NOTES:

△ AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

△ INSTALL F/N 14 WITH F/N 52 & 53.

A △ 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMMASTER-CARR P/N 75935A651.

△ 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

△ REUSE FASTENERS FROM F/N 1.

△ USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

△ AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

△ INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

B △ NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

UNINCORPORATED ECN(S)

05304

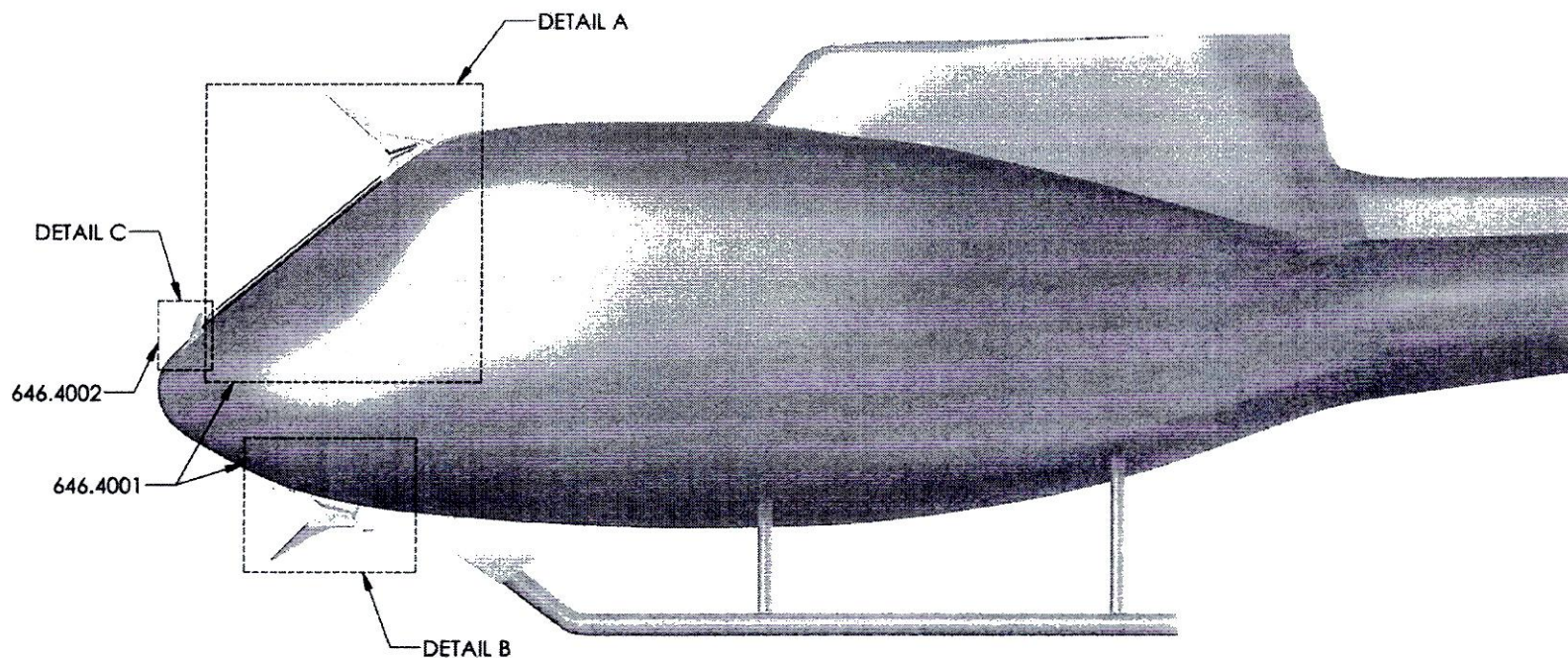
5	5	5	78	601.3875	SCREW	
1	1	1	77	646.9410	SHIM	△
	4	4	76	601.2764	WASHER	HA51149N030P
	2	2	75	601.2973	LOCKNUT	MS21042-08
	2	2	74	601.2988	SCREW	MS27039-0813
	2	2	73	601.2943	LOCKNUT	MS21042-3
	2	2	72	601.3128	NUT	AN310CAR
	2	2	71	601.3209	LOCKNUT	MS21042-4
	4	4	70	601.2638	WASHER	HA51149D032P
	2	2	69	601.2669	BOLT	AN46C7A
	2	2	68	601.3119	CLEVIS	AN46S-34R
	2	2	67	601.3121	EYE BOLT	AN44-5A
	2	2	66	650.9201	EYE BRACKET ASSY	
REF	REF	REF	65	647.5701	GPS MOUNT KIT	△
		2	64	601.3151	WASHER	HA51149D036P
			63	601.2911	SCREW	MS24694553
	24	24	62	601.2637	SCREW	MS27039-1-14
2	2	2	61	601.2763	BOLT	AN3-12A
	1	1	60	646.3913	SHIM	
	4	4	59	646.3912	SHIM	
	1	1	58	646.3911	SHIM	
	4	4	57	646.3910	SHIM	
	5	5	56	600.1013	PRIMER	
	8 FT	8 FT	55	600.0129	VHB TAPE	PR-142E CLASS B
	1	1	54	600.1012	SEALANT	
	1	1	53	600.0991	MAGNEBOND 6378 PART B	△
	1	1	52	600.0990	MAGNEBOND 6378 PART A	△
	6	10	51	601.2826	BOLT	AN3-11A
		2	50	646.3814	WIPER BRACKET	
		2	49	601.2910	SCREW	MS27039-1-18
	2		48	601.1365	SCREW	MS27039-1-10
	2		47	646.3719	DOUBLER	
		2	46	646.3718	CUSTOM WASHER	
	1		45	646.3717	DOUBLER	
		22	44	601.1948	SCREW	MS27039-1-19
		2	43	601.1952	SCREW	MS27039-1-20
	4	4	42	601.1956	SCREW	MS27039-1-21
4005	4005	4005	4005	4005	4005	4005
FIN #	FIN #	FIN #	FIN #	FIN #	FIN #	FIN #
PART #	PART #	PART #	PART #	PART #	PART #	PART #
DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION	DESCRIPTION
MATL	MATL	MATL	MATL	MATL	MATL	MATL
SPEC.	SPEC.	SPEC.	SPEC.	SPEC.	SPEC.	SPEC.

REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 02199, 02201, 02719 & 02745	02/08/2010	P. BRAVO
B	INCORPORATED ECN 02044, 02071 & 04751	11/04/2014	P. BRAVO
C	INCORPORATED ECN 02078	08/09/2015	P. BRAVO

		2		2	41	601.2829	SCREW		MS24694554	
		2		2	40	601.2831	RIVET		MS20426A05-7	
		1		1	39	646.3716	GAUGE BRACKET			
		6		6	38	601.1953	SCREW		MS27039-1-12	
	2			2	37	646.3715	STRUT DOUBLER			
		2		2	36	601.2824	BOLT		AN3-5A	
12	36			36	35	601.2277	RIVET		0020455-9-02	
6	18			18	34	600.0795	NUTPLATE		MS21047-5	
3	3			3	33	601.2565	RIVET		MS20470A05-7	
1	1			1	32	646.3813	STRUT BRACKET			
4	4			4	31	601.2822	BOLT		AN3-3A	
2	2			2	30	646.3812	GUSSET BRACKET			
8	8			8	29	601.2564	RIVET		MS20470A05-6	
1	1			1	28	646.3714	GUSSET			
	1		1	1	27	646.3610	FILLER			
	3		3	3	26	601.2830	SCREW		MS24694555	
	2		2	2	25	601.2825	BOLT		AN3-6A	
	1		1	1	24	646.3811	RADIUS BLOCK			
	1		1	1	23	646.3712	CLIP			
	1		1	1	22	646.3711	CLIP			
8	8			8	21	601.2832	RIVET		MS20470A05-5A	
14	14			14	20	601.2020	RIVET		CR3215-5-3	
4	6	4	6	10	19	601.2823	BOLT		AN3-4A	
	1		1	1	18	601.2827	BOLT		AN3-13A	
	5		5	5	17	601.2912	SCREW		MS24694551	
1	1			1	16	646.3713	GUSSET			
1	1			1	15	646.3210	SUPPORT			
		1		1	14	646.3710	DOUBLER			
	1		1	1	13	646.3110	CHANNEL			
14	10	8	53	6	61	12	601.1624	LOCKNUT	MS21042-3	
16	32	18	120	16	144	11	601.1607	WASHER	HA51149D032P	
					10	646.3410	LH WIPER DEFLECTOR			
				1	9	646.3411	RH WIPER DEFLECTOR			
		2		2	8	647.7703	STRUT ASSY			
		2		2	7	647.0112	STRUT BRACKET			
	1		1	1	6	646.3511	STRUT			
	1		1	1	5	646.3510	STRUT			
2		2		2	4	646.3810	BRACKET			
			1	1	3	646.2910	DEFLECTOR			
	1		1	1	2	646.3001	LOWER CUTTER ASSY			
		1		1	1	646.3301	UPPER CUTTER ASSY			
X						646.4006	LOWER CUTTER FIXED PROVISIONS			
	X					646.4005	LOWER CUTTER REMOVABLE PROVISIONS			
		X				646.4004	FIXED PROVISIONS KIT			
			X			646.4003	CABLE CUTTERS KIT WITHOUT FIXED PROVISIONS			
				X		646.4002	AS350 WIPER DEFLECTOR KIT			
					X	646.4001	AS350 CABLE CUTTERS KIT			
4006	4005	4004	4003	4002	4001	FINO #	PART #	DESCRIPTION	MATL	SPEC.

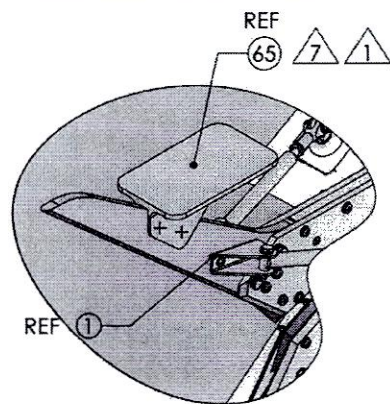
QTY	NEXT ASSY (S)	ORIGINAL DATE INCORPORATED 08-27-08 BY: [Signature] S. BRAVO	APPROVED P. BRAVO
DRAWING APPROVAL P. BRAVO 08/27/08		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TO BRANCHES ARE 2 PLACE DECIMALS & 0.01 3 PLACE DECIMALS 0.001 ANGLES & 2"		AS350 CABLE CUTTERS KIT	
REV	DATE	BY	CHKD
B	07M26	646.4000	C
SCALE		SHEET 1 OF 5	

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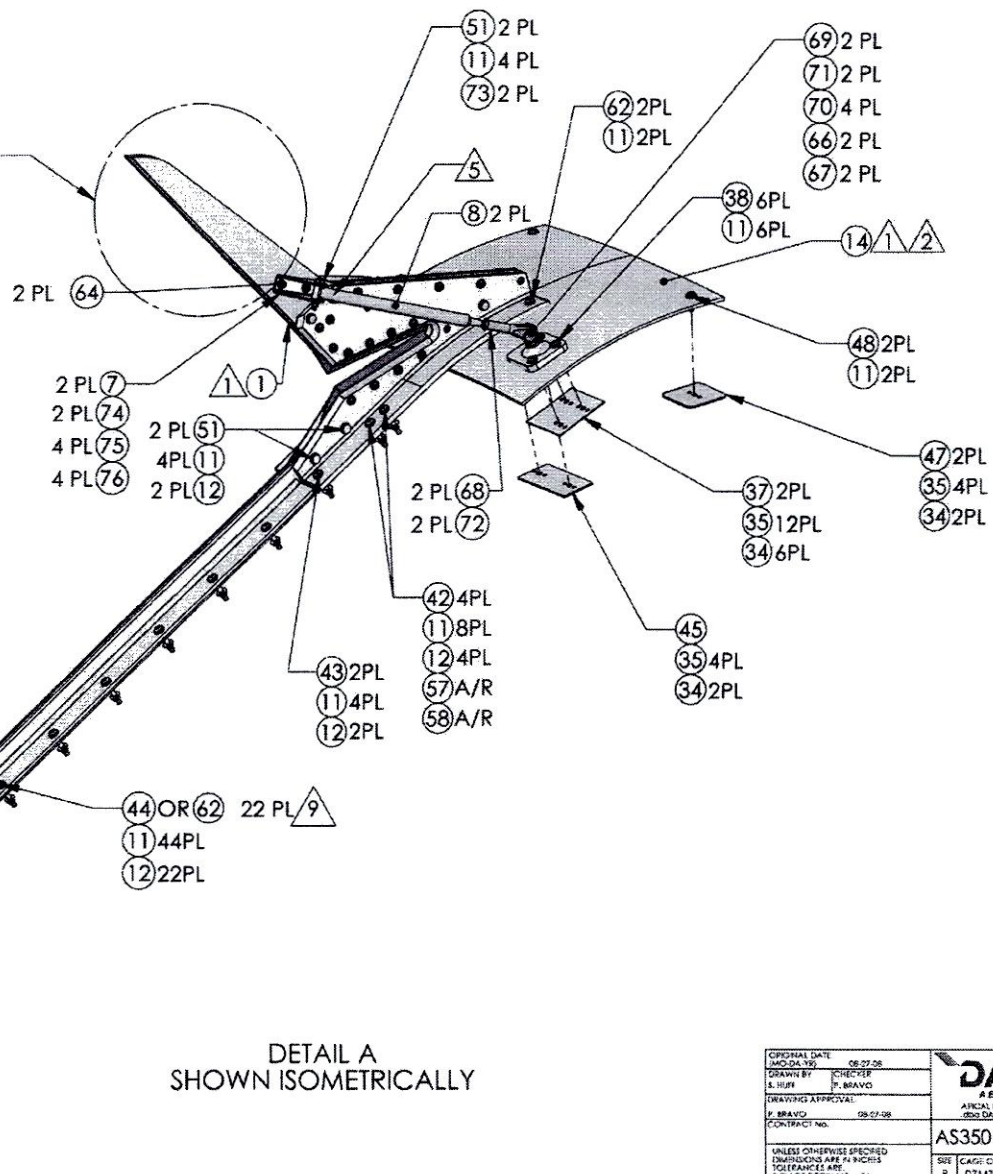
ORIGINAL DATE 08/27/08		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760) 724-5300	
DRAWN BY S. HUR		DART AEROSPACE APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. BRAVO		AS350 CABLE CUTTERS KIT	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 3 PLACE DECIMALS ±0.10 2 PLACE DECIMALS ±0.05 ANGLES ± 3°			
REV	CAGE CODE	DWG. NO.	REV
B	07M26	646.4000	C
SCALE NONE		SHEET 2 OF 5	

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DETAIL D
TYPICAL GPS MOUNT KIT INSTALLATION

DETAIL D



DETAIL A
SHOWN ISOMETRICALLY

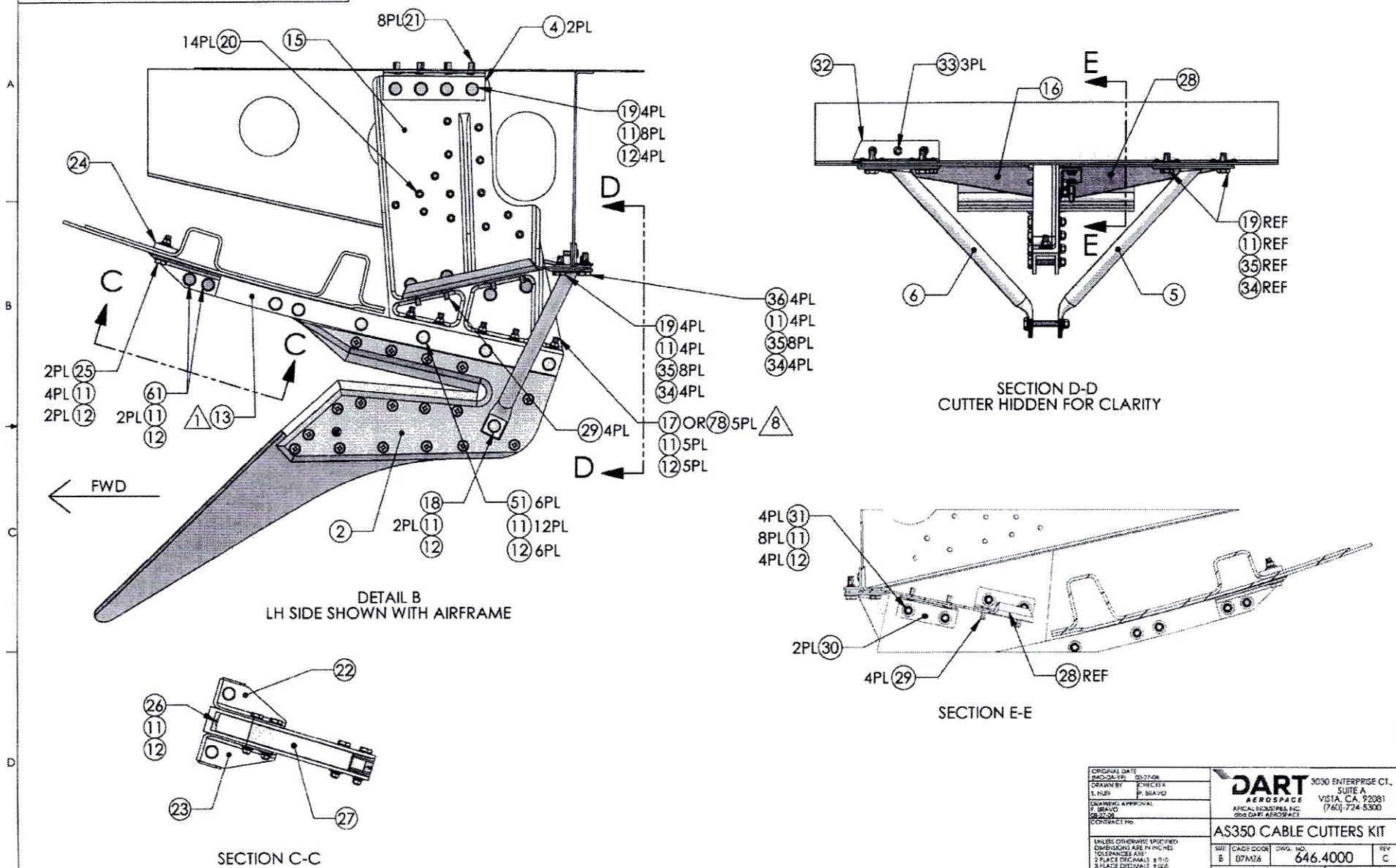
ORIGINAL DATE MODDA 165	08-27-08		3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300
DRAWN BY S. HOFF	P. BRAVO		AS350 CABLE CUTTERS KIT
DRAWINGS APPROVAL P. BRAVO	08-27-08		
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET B	
CAGE CODE D7M26		QTY. 646,400	
SCALE NONE		SHEET 3 OF 5	

DART 3030 ENTERPRISE CT., SUITE A
VISTA, CA. 92081
(760)-724-5300
APICAL INDUSTRIES INC.
DBA DART AEROSPACE

AS350 CABLE CUTTERS KIT

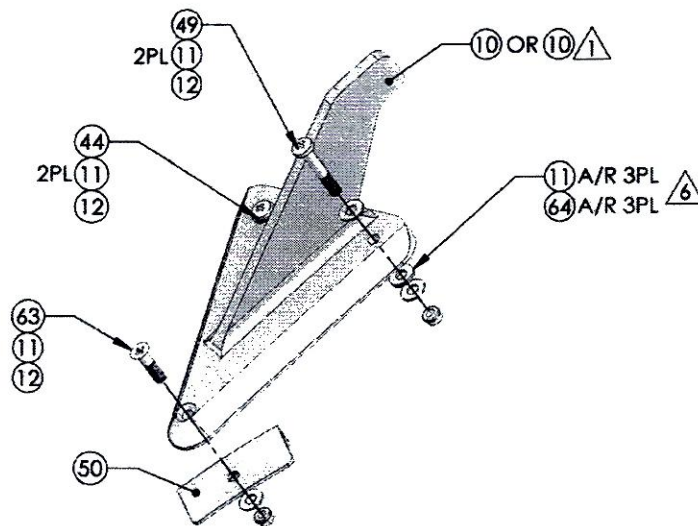
SHEET 3 OF 3

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ORIGINAL DATE 03-27-08		3030 ENTERPRISE CT., SUITE A VISTA, CA, 92081 (760) 724-5300	
DRAWN BY S. HURF	P. SHAW	DART AEROSPACE APICAL INDUSTRIES INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. SHAW 08-26-08		CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± 0.10 3 PLACE DECIMALS ± 0.05 ANGLE ± 5°		AS350 CABLE CUTTERS KIT	
SIZE B	CAGE CODE 07M26	DWG. NO. 646.4000	REV C
SCALE NONE		SHEET 4 OF 5	

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DETAIL C
 LH SHOWN EXPLODED
 RH OPPOSITE

ORIGINAL DATE (MCO-DA-TB) 08-27-09		DART 3030 ENTERPRISE CT. AEROSPACE SUITE A VISTA, CA. 92081 (760)-724-5300 APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
DRAWN BY S. HART P. BRAVO			
DRAWING APPROVAL P. BRAVO 08-27-09		AS350 CABLE CUTTERS KIT SCALE NONE	
CONTRACT NO.		SHEET 5 OF 5 CASH CODE 07M26 DOW. NO. 646.4000 REV. C	

Work Order ID 159236

159236

Wednesday, April 05, 2017 4:32:58 PM

Accept

N900040100

Setup

Start

NS1

Stop

NS2

Item ID: 646.4001

Revision ID:

Item Name: AS350 Cable Cutter System

Start Date: 4/10/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/18/2017 Req'd Qty: 1.00

1

Customer:

Reference: SCHEDULED/S

Run

Start

NR1

Stop

NR2

Approvals: Process Plan: _____ Date: APR 05 2017

Tooling:

Date: _____

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
646.4000	C1

APR 10 2017 DAS

DAS
21
9-89

APR 11 2017

100 Document Control
DOCUMENT CONTROL

0.00

100

DC

Doc.Control -USB or Paperwork

Memo

0.00

Photocopy bluefile & type labels per PPP 646.4001

cb

110

Pick Kit

0.00

110

Packaging

Packaging

Memo

0.00

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Quality Control

Memo

0.03